

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A slurry dispensing apparatus for use with a chemical mechanical polishing tool for planarizing semiconductor substrates having irregular topology, said apparatus comprising:

a slurry dispensing manifold having a first end suspended over a polishing pad, and a second end for mounting to the chemical mechanical polishing tool;

a linear array of slurry dispensing nozzles positioned under said suspended manifold, wherein each nozzle is fed from a bifurcated supply line, and each branch of said bifurcated supply line having an adjustable flow control valve, a flow meter and a check valve.

~~a linear array of slurry dispensing nozzles positioned under said suspended manifold, —
— each nozzle of said linear array providing an adjusted slurry mixture supplied from —
— bifurcated supply lines, and
— each branch of said bifurcated supply lines having an adjustable flow control valve, a —
— flow meter, and a check valve.~~

Claim 2 (currently amended): The apparatus of claim 1 wherein said bifurcated supply line[s] conjoined to each nozzle providing provides an adjusted volume of slurry ~~emulsion~~ from one branch and an adjusted volume of [a] liquid from the other branch to

~~each nozzle.~~

Claim 3 (currently amended): The apparatus of claim 1 wherein said adjusted volume of slurry ~~emulsion~~ and adjusted volume of [a] liquid provides the means for diluting the dispensed slurry ~~through to~~ selected nozzles thereby ~~fine-tuning~~ controlling the polishing rate in specific zones on a substrate according to its topography.

Claim 4 (original): The apparatus of claim 1 wherein each of said array of nozzles are identical.

Claim 5 (currently amended): The apparatus of claim 1 wherein said slurry ~~emulsion~~ and liquid that is supplied to each branch of said bifurcated supply lines are fed from a source container, serially ~~in-series~~, through a variable flow control valve, a flow meter, and a check valve.

Claim 6 (original): The apparatus of claim 5 wherein said variable flow control valve is slaved to an output signal provided by said flow meter in response to a programmable tool controller.

Claim 7 (original): The apparatus of claim 5 wherein said check valves mounted proximal junction of said bifurcated supply lines performs as a mixing venturi for said nozzles.

Claim 8 (currently amended): The apparatus of claim 5 wherein said slurry ~~emulsion~~ is a colloidal alumina or silica [in] prepared with deionized water, and said liquid is deionized water used for ~~dilution~~ diluting said slurry.

Claim 18 (cancelled)

Claim 19. (original): A method for planarizing semiconductor substrates having irregular topology, comprising the steps of:

providing a chemical mechanical polishing tool;

providing a slurry dispensing manifold having a first end suspended over a polishing pad, and a second end for mounting to the chemical mechanical polishing tool;

providing a linear array of slurry dispensing nozzles positioned under said suspended manifold, each nozzle of said linear array dispensing an adjusted slurry mixture supplied from a bifurcated supply line, while each branch of said bifurcated supply line having an adjustable flow control valve, a flow meter, and a check valve.

Claim 20 (currently amended): The method of claim 19 wherein said bifurcated supply lines dispense an adjusted volume of slurry ~~emulsion~~ and an adjusted volume of a liquid to each nozzle.

Claim 21 (currently amended): The method of claim 19 wherein said adjusted volume of

slurry ~~emulsion~~ and ~~adjusted volume of a~~ liquid provide the means for diluting the dispensed slurry through selected nozzles thereby fine-tuning the polishing rate on a substrate according to its topography.

Claim 22 (original): The method of claim 19 wherein each of said array of nozzles are identical.

Claim 23 (currently amended): The method of claim 19 wherein said slurry ~~emulsion~~ and liquid that is supplied to each branch of said bifurcated supply lines are fed, serially in series, from a source container, ~~through~~ to a variable flow control valve, a flow meter, a check valve, a junction, and said nozzle.

Claim 24 (original): The method of claim 23 wherein said variable flow control valve is slaved to an output signal provided by said flow meter in response to a programmable tool controller.

Claim 25 (currently amended): The method of claim 23 wherein said check valves mounted proximal said junction of said bifurcated supply lines performs as a mixing venturi for said nozzles.

Claim 26 (currently amended): The method of claim 23 wherein said slurry ~~emulsion~~ is a colloidal alumina or silica in deionized water, and said liquid is deionized water used for dilution.

Claim 27 (original): The method of claim 19 wherein said polishing is accomplished in two steps.

- i. adjusting the dilution of slurry to each nozzle ~~dispense volume~~ according to substrate's topology;
- ii. ~~allowing full flow~~ normalize flow to each nozzle for polishing uniformity.